

CHAPTER TWO

The Labor Market: Jobs, Industries, and Wages

the job market

The supply and demand of labor play important roles in the job market. When choosing a career, you should know the current supply and demand of labor in that field of work. You should also learn what the future demand for that, and related occupations, is expected to be.

Labor demand depends on three main employment factors: job growth, worker replacement, and labor turnover. The most obvious contributor to labor demand is job growth. As the demand for goods and services increases, new businesses open or existing businesses expand to meet the needs of a growing economy. This situation results in the creation of more jobs, and new employees are hired. Nonfarm jobs in Utah grew by 2.6 percent from June 1999 to June 2000, an increase of about 27,000 new jobs. By 2005, another 121,000 net new jobs will be created, bringing Utah's total employment to about 1.3 million. Job growth is a sign of a healthy economy; but when you look at the big picture, it contributes a relatively small number of total job openings.

Fortunately, jobs created by economic growth are not your only hope, because the job market generates many times more actual job opportunities. In other words, people are constantly changing jobs, retiring, or leaving the labor market for other reasons. Generally, less than forty percent of the job opportunities are caused by growth, while over sixty percent result from turnover and replacement. During your career, you will probably contribute to turnover by changing jobs a number of times.

job openings

There will be about 64,000 job openings in Utah each year through 2005. Nearly one-half of the openings will occur due to growth in the economy, the remainder due to replacement of existing workers. This will result in an 11.4 percent employment increase for the five-year period. (Because a different system is used to estimate occupational employment, the total of these occupational categories for 2000 and 2005 is somewhat larger than the total of the industries.)

About one of every four Utah workers was employed in a **production, operating or maintenance** occupation in 2000. But its 5 percent expansion will make it the slowest-growing of all occupational categories. This category is expected to have 11,300 job openings per year through 2005. **Clerical and administrative support** occupations account for 15 percent of Utah jobs; the rate of job creation in this category will also be slow (9 percent) due to technological advances allowing companies to employ fewer workers while maintaining high rates of productivity.

The **professional/paraprofessional** category is expected to expand the most rapidly (17 percent), with 12,600 job openings per year supplementing the 239,000 current employment. **Sales** and **service** occupations are also projected to grow faster than average (both nearly 15 percent), with 12,000 and 11,000 openings per year, respectively.

Technical occupations will experience faster (18 percent) growth than any other category. However, this category will experience the fewest number of openings (3,000). About 7 percent of the jobs are in the **management** category which is expected to experience near-average growth through 2005, resulting in 4,000 annual job openings. The **agriculture** category will remain the smallest with about 40,000 jobs in 2000 and an expected annual openings of 2,000 jobs through 2005.

industry growth

One way to classify employment is by the industrial activities of employers. Each employer is assigned a Standard Industrial Classification (SIC) code, and then employers' reports of employment and wages are summarized by industry.

There are nine major industrial divisions, ranging from mining, with the smallest number of workers, to services, with the largest. Each division is comprised of major groups, which are comprised of industries. Of course, within a given industry there are many different occupations. For example, engineers, accountants, and assemblers may all work at an automobile plant, which is classified in the transportation equipment major group of the manufacturing division.

◆ Mining

Historically, mining has been an important industry in Utah. In fact, Utah has been referred to as the "Treasure Chest" of the United States. The mining process extracts natural materials, such as coal, ores, crude petroleum, and natural gas from the earth. Mining also includes quarrying (sand, gravel, and stone), well exploration and operations, milling (crushing, screening, washing, etc.), and other preparation done at a mining site. Salt and mineral extraction from the Great Salt Lake are also mining activities.

In the early 1900s, a much larger share of Utah's workforce was employed by mining companies. For example, mining comprised nearly 10 percent of the nonfarm jobs in 1939. By 1999, that share had fallen to less than 1 percent. The number of jobs in Utah's mining division peaked at 20,300 in 1981; it had dropped to 7,800 by 1986. There are currently nearly 8,000 mining workers in the state; a gradual reduction to 7,700 is anticipated to occur by 2005.

◆ Construction

Growth in the construction division depends on the demand for new commercial and industrial buildings, homes, highways, and other facilities. The construction sector consists of general building contractors, heavy construction, and special trades contractors.

Employment in Utah's construction division grew rapidly through the 1990s, tripling its workforce over a 12-year span. However, employment totals have peaked at 73,000 in 2000, and the next few years will see some job losses as major projects are completed. By 2005, a reduction of about 11,000 jobs (a 15 percent drop) is anticipated.

Nearly 10,000 companies, 80 percent of which have fewer than 10 employees, are active in the construction industry in 2000. Many of these will go out of business as the demand for their services wanes in the next few years.

◆ **Manufacturing**

Manufacturing is the process of turning crude or raw materials into finished products. It may involve highly technical and detailed processes such as turning silicone, copper, plastic, and sheet metal into a personal computer, or a simple process such as turning wheat into flour. Manufacturing is an important industry in Utah; it provided jobs for 131,000 workers in 2000.

From 1989 to 1999, manufacturing employment in the United States shrank by nearly 1 million jobs (5 percent). During the same time period, Utah's manufacturing employment increased by nearly 30 percent (29,100 jobs). However, that's all history. Since 1998, Utah's manufacturing employment trends have been very similar to those of the U.S., and this minimal expansion pattern (4 percent, 5,500 jobs) is anticipated to continue through 2005.

◆ **Transportation, Communications, and Public Utilities**

Firms engaged in providing transportation, communications, and public utility (TCU) services are generally regulated by various public agencies within different levels of government. About 61,000 Utah workers are employed by 2,600 establishments in this division; 67 percent of these jobs are in Salt Lake County. By 2005, an additional 6,000 TCU jobs will exist, a 10-percent increase. Communications is the fastest-growing of the industries in this division.

◆ **Trade**

Goods produced by manufacturers are transferred to consumers through firms in the trade division. Companies in wholesale trade buy goods from producers and sell them to retail trade companies that sell to other industries or consumers. This link between producers and consumers is a very important part of the economic process.

About 17,000 establishments employing 252,000 workers comprise Utah's trade division. This employment total is projected to increase to 271,000 by the year 2005, a growth of 8 percent. One-half of the trade jobs and firms are located in Salt Lake County. Trade accounts for 23 percent of nonfarm employment in Utah.

The largest number of trade-division jobs are in eating and drinking establishments; this major group employs about 64,000 workers statewide. Food stores, automotive dealers and service stations, miscellaneous retail, and general merchandise stores also provide a significant number of jobs in the trade division.

◆ **Finance, Insurance, and Real Estate**

Employment in Utah's finance, insurance and real estate (F.I.R.E.) division is projected to increase from 57,000 in 2000 to 62,000 by 2005, an increase of 9 percent. Of the 6,400 employing establishments in this division, most are in Salt Lake County.

Population and economic growth in Utah affect the demand for financial, insurance and real estate services. Since Utah's economy is anticipated to grow slowly for the next five years, this division's employment growth will be somewhat slower than average.

◆ **Services**

The service division is the largest in Utah, accounting for nearly 30 percent of total employment. It is a very diverse aggregation of industries, ranging from hotels to beauty salons to hospitals to help/supply services to Brigham Young University. Hundreds of interesting employment opportunities exist in this division, including many high-paying professional and technical occupations.

There were 310,000 workers employed in the services division in 2000; this number is projected to swell to 369,000 by 2005. This implies a five-year growth rate of 19 percent.

◆ **Government**

The three levels of government, federal, state, and local, provide a combined 17 percent of the nonfarm jobs in Utah. One-half (93,000) of the total 183,000 government positions are with the 2,500 local government employers. Of these, over 60 percent are employed by local school districts. State government employs 57,000 positions, of which 30,000 are with educational services (primarily higher education). Federal government employs 32,000 Utahns, 12,000 of which are civilian workers at military installations. Several thousand more military personnel are located here. Both the U.S. Postal Service and the Internal Revenue Service also have a large presence in Utah.

In the next five years, local and state government employment is projected to increase by about 12 percent, approximately the same rate as Utah's total nonfarm jobs will expand. Federal positions will grow by over 5 percent.

◆ **Agriculture**

Although the number of Utahns employed in farm work was roughly the same in 1999 as it was sixty years ago, agricultural employment as a share of total employment occupies a mere fraction of its former position. In 1939, nearly 20 percent of total employed were farm workers; in 1999 it was 2 percent. Agriculture's 25,500 employment in 2000 is projected to increase to 26,500 by 2005, a growth of 4 percent.

◆ **Self Employed**

The self-employed work for themselves or contract their services to organizations. Thus, small business owners (of unincorporated businesses) are self-employed. In addition, certain sales representatives, skilled tradesmen such as carpenters and plumbers, and professionals such as dentists may be self-employed. For convenience in accounting for them, domestic (private household)

workers and nonfarm unpaid family workers are included with the self-employed.

There is no established reporting system to measure the number of self-employed workers; it is thus somewhat uncertain just how many there are in Utah at a given time. The U.S. Department of Labor annually publishes employment estimates for Utah from which self employment estimates can be deduced. The result of this process was an estimate for 1998 of 76,000 self-employed in Utah. Consistent forecasts for 2000 and 2005 are 80,000 and 95,000.

wages

In 1999, Utah's average annual pay for nonagricultural jobs was \$27,500. Although this figure is up 3.8 percent from the 1998 level, it remains only 84 percent of the United States average. Since the early 1980s, Utah's average annual pay as a percentage of the U.S. has fallen from 1981's 96 percent to the present level. The primary reason for this transition is the loss of high-paying goods-producing and federal government jobs. They have been replaced by service-producing jobs, which generally have much lower average annual pay. Utah's demographics also play a part in this wage differential. With a relatively young labor force and a large percentage of its age 16-to-24 population in the labor force, the lower wage levels of younger workers come into play. A related factor is that Utah has a higher percentage of part-time workers than the national average.

However, Utah's median household income exceeds that of the U.S. average by 13 percent. According to the Bureau of the Census, Utah's 1998-9 median household income was \$45,700, which is 13 percent higher than the U.S. median of \$40,300. The biggest reason for this difference is that Utah, with its largest household size and youngest population in the U.S., has more workers per household. Contradictorily but of lesser importance, Utah's 1999 per capita personal income, which ranks 40th in the U.S., is 82 percent of the U.S. average.

COMPARATIVE WAGES

	Accountant 21114	Mechanical Engineer 22135	Registered Nurse 32502	Secretary 55108	Receptionist 55305	Accounting Clerk 55338
AZ	19.98	26.84	19.84	11.30	8.81	11.23
CA	21.65	28.21	24.91	13.87	10.11	13.29
ID	17.51	25.93	18.89	10.03	8.80	9.98
IL	20.01	25.07	18.98	12.10	9.33	11.83
NY	22.06	25.28	23.88	13.87	10.32	13.35
TX	19.73	28.67	19.88	11.15	8.89	11.13
WA	20.84	NA	22.74	12.66	9.81	12.38
UT	18.42	25.74	20.20	10.57	8.30	10.36

	Drafter 22514	Electronic Technician 22505	Licensed Practical Nurse 32505	Maintenance RepairGU 85132	Machinist 89108	Carpenter 87102
AZ	16.34	19.15	14.11	11.72	14.94	13.24
CA	18.21	19.84	16.15	12.97	15.16	17.97
ID	14.13	NA	12.66	11.20	14.87	13.75
IL	16.32	17.95	13.09	13.07	14.46	19.76
NY	18.77	18.25	14.68	13.48	14.24	17.88
TX	18.24	17.36	13.29	10.72	13.39	12.10
WA	NA	NA	14.37	13.46	NA	18.17
UT	13.88	17.37	12.13	11.48	14.34	13.67

Source OES 1998 estimates

The table on the preceding page shows 1998 hourly occupational wage comparisons between the State of Utah and other states. Wage rates in the following table are for occupations surveyed by the Utah Department of Workforce Services in 1999 for the State of Utah.

UTAH EMPLOYMENT AND JOB OPENINGS SUMMARY

By Major Occupational Category 2000 - 2005

	2000	Employment 2005	Annual Average Job Total	Due to Growth	Openings Due to Replacement	2000 % Distrib.	2000-05 % Change
Total - All Categories	1,353,800	1,508,200	63,900	30,890	33,010	100.0	11.4
Managerial & Administrative	98,900	111,100	4,000	2,430	1,570	7.3	12.3
Professional & Paraprofessional	239,300	280,800	12,600	8,290	4,310	17.7	17.3
Technical	51,200	60,500	3,000	1,860	1,140	3.8	18.2
Sales & Related	199,000	228,600	12,100	5,940	6,160	14.7	14.9
Clerical & Administrative Support	203,100	220,700	7,800	3,520	4,280	15.0	8.7
Service	174,500	199,400	11,200	4,990	6,210	12.9	14.3
Agriculture, Forestry, & Fishing	40,300	43,600	1,900	660	1,240	3.0	8.2
Production, Operating, & Maint.	347,500	363,500	11,300	3,200	8,100	25.7	4.6

Source: Utah Department of Workforce Services, Economic Data Collection and Analysis, 10/2000.

Top 50 Fastest Growing* Occupations in Utah 2000-2005

Actors/Directors/Producers	5.1
Amusement/Recreation Attendants	4.1
Animal Caretakers, Excl Farm	4.1
Architects, Excl Landscape	4.4
Artists & Commercial Artists	5.0
Biological Scientists	4.7
Child Care Workers	4.6
Computer Support Specialists	7.5
Computer Systems Analysts	6.9
Correctional Officers	4.6
Court Reporters, Medical Transcriptionists	4.0
Dental Assistants	5.2
Dental Hygienists	5.1
Dietitians & Nutritionists	3.9
Duplicating Machine Operators	4.2
Engineers, Computer	6.8
Flight Attendants	4.5
Home Health Aides	4.9
Instructors/Coaches, Sports & Physical Training	4.6
Interior Designers	4.8
Management Analysts	4.5
Managers, Engineering, Nat Sci, Info Sys	4.0
Managers, Medical/Health Services	4.7
Mathematical Technicians	5.5
Med Records/Health Info Techns	5.0
Medical Assistants	5.6
Musicians, Instrumental	4.9
Nursing Aides/Orderlies/Attends	4.3
Occupational Therapists	5.1
Paralegals & Legal Assistants	6.2
Personal/Home Care Aides	4.0
Photographic Process Workers, Precision	4.0

Physical Therapists	4.5
Physical Therapy Assistants/Aides	5.0
Physician Assistants	5.4
Police Patrol Officers	4.4
Private Detectives/Investigators	5.4
Real Estate Appraisers	4.7
Recreational Therapists	4.6
Registered Nurses	4.0
Sales Agents, Business Services	4.2
Sheriffs & Deputy Sheriffs	4.9
Social Workers, Med/Psychiatric	4.3
Social/Human Service Assistants	4.1
SocSocial Workers, Excl Med/Psychiatricial	4.3
Tax Preparers	5.1
Taxi Drivers & Chauffeurs	4.0
Telmarketers, Sales Related Workers	7.2
Ushers/Lobby Attendants/Ticket Takers	4.2
Writers & Editors	4.5

*The number next to the job title denotes the annual average employment growth rate for 2000-2005. The occupations shown in the list had 2000 employment of at least 500. The average employment growth rate for UTah between 2000-2005 is estimated at 2.4 percent.

Source: Utah Department of Workforce Services, Economic Data Analysis Unit, January 2000.

Top 50 Occupations with the Most New Jobs in Utah 2000-2005

Accountants & Auditors	1,290
Adjustment Clerks	1,420
Artists & Commercial Artists	1,370
Automotive Mechanics/Service Techs	1,790
Cashiers	3,770
Child Care Workers	2,590
Computer Support Specialists	2,770
Computer Systems Analysts	1,780
Cooks, Restaurant	690
Cosmetologists	1,470
Counter & Rental Clerks	1,110
Dental Assistants	760
Designers, Excl Interior	1,160
Engineers, Computer	1,360
Food Prep/Service Workers, Fast Food	840
Food Preparation Workers	700
Food Service & Lodging Managers	1,610
General Managers & Top Execs	2,010
Graduate Assistants, Teaching	1,100
Hand Packers & Packagers	1,720
Instructors/Coaches, Sports/Phy	840
Janitors & Cleaners	2,950
Laborers, Landscaping/Groundskeepng	2,510
Lawyers	1,470
Maids & Housekeeping Cleaners	1,620
Maintenance Repairers, Gen Util	870
Management Analysts	830
Managers, Engineering, Nat Sci, Info Sys	660
Managers, Office/Adm Support	1,530
Managers, Property/Real Est/Comm	660

Medical Assistants	780
Nursing Aides/Orderlies/Attendants	1,490
Office Clerks, General	2,680
Physicians	1,220
Reception & Information Clerks	1,680
Registered Nurses	3,370
Sales Agents, Business Services	1,110
Sales Agents, Real Estate	710
Sales Reps, Non-Technical	1,100
Salespersons, Retail	3,940
Secretaries, Excl Legal or Medical	1,020
Social Workers, Excl Med/Psychtric	950
Social/Human Service Assistants	790
Teacher Aides, Paraprofessional	1,720
Teachers, Elementary School	750
Teachers, Secondary School	1,460
Telemarketers, Sales Related Workers	10,080
Truck Drivers, Heavy	2,980
Truck Drivers, Light	2,120
Waiters & Waitresses	1,200
Writers & Editors	740

U.S. Top Ten Fastest Growing Jobs 1998-2008

Computer Engineers
Computer Support Specialists
Computer Systems Analysts
Database Administrators
Desktop Publishing Specialists
Paralegals and Legal Assistants
Personal and Home Care Aides
Medical Assistants
Social and Human Service Assistants
Physician Assistants

U.S. Top Ten Occupations with the Most New Jobs 1998-2008

Computer Systems Analysts
Sales Clerks, Retail
Cashiers
Managers, General and Top Executives
Truck Drivers, Light and Heavy
Office Clerks, General
Registered Nurses
Computer Support Specialists
Personal and Home Care Aides
Teacher Assistants

LARGEST EMPLOYERS IN UTAH

Rank	Employer Name	Employees
1	State of Utah	21,500
2	Brigham Young University	16,500
3	University of Utah (inc. Hospital)	16,000
4	Hill Air Force Base	9,500
5	Convergys	8,500
6	Granite School District	8,000
7	Jordan School District	8,000
8	Utah State University	6,500
9	Davis School District	6,500
10	Smith's Food King	6,500
11	US Postal Service	6,000
12	Autoliv (Morton International)	5,500
13	Salt Lake County	5,500
14	Wal-Mart Stores	5,500
15	Albertson's	5,000
16	Alpine School District	5,000
17	Delta Airlines	4,500
18	Novus (Discover Card)	4,500
19	Internal Revenue Service	4,000
20	LDS Hospitals	4,000
21	IHC Hospitals	4,000
22	Salt Lake City School District	4,000
23	ZCMI	4,000
24	United Parcel Service	3,500
25	Thiokol Corp	3,500
26	Weber School District	3,500
27	US West Communications	3,000
28	Icon Health & Fitness	3,000
29	Salt Lake Community College	3,000
30	Salt Lake City Corp	3,000
31	Novell	3,000

32	Zions First National Bank	2,500
33	K Mart Corp	2,500
34	Weber State University	2,500
35	Utah Valley Regional Medical Center	2,500
36	JC Penney Company	2,500
37	Kelly Services	2,500
38	Utah Valley State College	2,500
39	Sears Roebuck & Co.	2,500
40	Pacificorp (Utah Power)	2,500
41	First Security Bank	2,500
42	Kennecott Minerals	2,500
43	McKay-Dee Hospital	2,000
44	Nebo School District	2,000
45	Provo City School District	2,000
46	Super Target	2,000
47	Primary Children's Medical Center	2,000
48	Unibase Data Entry	2,000
49	Shopko Stores	2,000
50	Washington School District	2,000

STATE SALARY SCHEDULE

State of Utah Step Pay Plan (Effective June 24, 2000)

Step	Rate	Step	Rate
1	4.66	6	5.34
2	4.79	7	5.48
3	4.92	8	5.63
4	5.06	9	5.79
5	5.19	10	5.96
11	6.11	16	7.00
12	6.28	17	7.19
13	6.45	18	7.39
14	6.63	19	7.59
15	6.81	20	7.80
21	8.02	26	9.18
22	8.24	27	9.43
23	8.46	28	9.69
24	8.70	29	9.96
25	8.94	30	10.23
31	10.52	36	12.04
32	10.80	37	12.37
33	11.10	38	12.71
34	11.41	39	13.06
35	11.72	40	13.42
41	13.79	46	15.80
42	14.17	47	16.23
43	14.56	48	16.68
44	14.96	49	17.14
45	15.37	50	17.61

Step	Rate	Step	Rate
51	18.09	56	20.72
52	18.59	57	21.29
53	19.10	58	21.88
54	19.63	59	22.48
55	20.07	60	23.09
61	23.73	66	27.18
62	24.38	67	27.92
63	25.05	68	28.69
64	25.74	69	29.48
65	26.45	70	30.29
71	31.13	76	35.65
72	31.98	77	36.63
73	32.86	78	37.63
74	33.76	79	38.67
75	34.69	80	39.73
81	40.83	86	46.76
82	41.95	87	48.04
83	43.10	88	49.36
84	44.29	89	50.72
85	45.51	90	52.12
91	53.55	96	61.33
92	55.02	97	63.01
93	56.53	98	64.75
94	58.09	99	66.53
95	59.69	100	68.36
101	70.24	106	80.44
102	72.17	107	82.65
103	74.15	108	84.93
104	76.19	109	87.76
105	78.29	110	89.66

Source: Utah Department of Human Resource Management

Utah Employment Projections by Industry

2000 to 2005

	2000	2005	<u>2000 - 2005 Change</u>		<u>Percentage Distribution</u>	
			Number	Percentage	2000	2005
Total	1,180,500	1,301,400	120,900	10.2	100.0	100.0
Mining	8,000	7,700	(300)	-3.7	0.7	0.6
Construction	72,800	61,900	(10,900)	-15.0	6.2	4.8
Manufacturing	131,000	136,500	5,500	4.2	11.1	10.5
Transp., Communic., Utilities	61,200	67,400	6,200	10.1	5.2	5.2
Trade	251,700	271,100	19,400	7.7	21.3	20.8
Finance, Insurance, Real Estate	57,100	62,000	4,900	8.6	4.8	4.8
Services	310,200	369,400	59,200	19.1	26.3	28.4
Total Government	183,000	204,000	21,000	11.5	15.5	15.7
Federal	32,300	33,900	1,600	5.0	2.7	2.6
State	57,200	63,000	5,800	10.1	4.8	4.8
Local	93,500	107,100	13,600	14.5	7.9	8.2
Agriculture & Ag. Services	25,500	26,400	900	3.5	2.2	2.0
Nonag. Self-Employed*	80,000	95,000	15,000	18.8	6.8	7.3

* Nonag. self-employed plus unpaid family plus private household workers.

Source: Utah Department of Workforce Services, Economic Data Collection and Analysis, 10/2000.